

1. A recording apparatus, comprising:

laser means for performing laser beam irradiation with a supplied driving pulse to form a recording data row on a recording medium, said data row being formed of pits and lands, the lands being between the pits and the pits being before and after the lands;

driving pulse generating means for generating pulses in accordance with recording data, said pulses having a reproducing power level, a first recording power level, and a second recording power level larger than the first recording power level, said second recording power level provided before and after the first recording power level; and

pulse generation control means for controlling at least one of the pulses having the second recording power level generated by said driving pulse generating means so that a pulse width thereof is varied in accordance with a length of at least one of a pit and a land to be formed.

2. The recording apparatus according to claim 1, wherein said pulse generation control means further comprises means for variably setting, in accordance with a predetermined recording condition, the second recording power level.

3. The recording apparatus according to claim 1, wherein said pulse generation control means further comprises means for variably setting, in accordance with the length of at least one of the land immediately formed before, the pulse

width of at least one of the pulses having the second recording power level.

4. The recording apparatus according to claim 1, further comprising:

detecting means for detecting a length of a land immediately formed before the pit to be formed,

wherein said pulse generation control means varies the pulse width of at least one of the pulses having the second recording power level in accordance with the detected land length.

5. The recording apparatus according to claim 4, wherein said detecting means detects a length of a pit immediately to be formed after the land; and

said pulse generation control means varies the pulse width of at least one of the pulses having the second recording power level in accordance with the detected pit length.

6. A recording method, comprising:

generating a laser beam to form a recording data row on a recording medium, said data row being formed of pits and lands, the lands being between the pits and the pits being before and after the lands; and

modulating the laser radiation to have a reproducing power level, a first recording power level, and a second recording power level larger than the first recording power

level, said second recording power level provided before and after the first recording power level,

wherein a width of the second recording power level is controlled so that the width is varied in accordance with a length of at least one of a pit and a land to be formed.

7. The recording method according to claim 6, wherein said generating step comprises selectively not generating the second recording power level in accordance with a speed at which said recording data row is formed on the recording medium.

8. The recording method according to claim 6, wherein said generating step comprises variably setting, in accordance with a predetermined recording condition, each of the first and second recording power levels.

9. The recording method according to claim 6, wherein said generating step comprises variably setting, in accordance with a predetermined recording condition, the width of the second recording power level within a range of $0T$ to $3T$.

10. A recording apparatus, comprising:

a laser supplied with a driving pulse to form a recording data row on a recording medium using laser beam irradiation, said data row being formed of pits and lands, the lands being between the pits and the pits being before and after the lands;

a laser driver for generating the driving pulse in accordance with recording data, said driving pulse having a

producing power level, a first recording power level, and a second recording power level larger than the first recording power level, said second recording power level provided before and after the first recording power level; and

a pulse generation controller for controlling a width of the second recording power level to be generated by said laser driver so that the pulse width thereof is varied in accordance with a length of at least one of a pit and a land to be formed.

11. The recording apparatus according to claim 10, wherein said pulse generation control means is configured to set the level of the second recording power level in accordance with a predetermined recording condition.

12. The recording apparatus according to claim 10, wherein said pulse generation controller is configured to set the pulse width of at least the pulse of the second recording power level, in accordance with a length of at least one of the land immediately formed before.

13. The recording apparatus according to claim 10, further comprising:

a detector configured to detect a length of the land immediately formed before a pit to be formed,

wherein said pulse generation controller is configured to vary the pulse width of at least the pulse having the second recording power level in accordance with the detected land length.

14. The recording apparatus according to claim 13, wherein said detector detects a length of the pit immediately to be formed after the land; and

said pulse generation controller is configured to vary the pulse width of at least the pulse having the second recording power level in accordance with the detected pit length.